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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/332,726	06/14/1999	PAUL STEPHAN BEDROSIAN	7	3263

7590

09/04/2003

JOSEPH B RYAN
RYAN & MASON LLP
90 FOREST AVENUE
LOCUST VALLEY, NY 11560

EXAMINER

KWOH, JASPER C

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 09/04/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/332,726

Applicant(s)

BEDROSIAN, PAUL STEPHAN

Examiner

Jasper Kwoh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-6, 9-14 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell (US006111878A) in view of Kelly et al.

Regarding claims 1, 9 and 17, Powell discloses a method and apparatus comprising processing in the transmitter a payload signal (i.e. fig. 10) and a timing reference signal (i.e. fig. 1, 17) to generate a signal including frequency and phase information associated with transmitter side timing reference signal (i.e. fig. 1, fnx and 18 includes frequency and phase information); and transmitting the transport signal such that the receiver can recover at least a portion of the frequency and phase information therefrom (i.e. fig. 1, 25, the PLL 70 and fnx of fig. 5 shows that phase and frequency information is used to recover fr) wherein the signal is configured to include frequency and phase information associated with the timing (i.e. fig. 5, use of PLL implies that the phase information was included so it may be used and frequency is recovered so it has to be included in order for it to be recovered) reference signal by providing in the transmitter a local oscillator adapted to receive the transmitter side timing reference signal as an external timing reference (i.e. fig. 1, 16, fnx is used as external timing reference for local oscillator 14). Powell does not specifically disclose that the transport signal is digital subscriber line. However, Kelly et al. teaches a DS1 to HDSL synchronizer and desynchronizer (i.e. fig. 1). Therefore, it would have been

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obvious to an ordinary person skilled in the art at the time of the invention to include using on a new telecommunications network taught by Kelly et al. with the method and apparatus of Powell. The motivation is to provide repeaterless DS1 service over existing copper-based networks for a fraction of the cost and time over conditioned DS1 facilities.

Regarding claims 2-6, 10-14, and 18-22, Powell discloses the reference signal includes stratum 1 synchronization information (i.e. fig. 1, col. 3, ll. 22-23, network clock PRS is stratum 1 @ fn); synchronization status message associated with timing reference (i.e. fig. 1, col. 3, ll. 23-26, the SRTS time stamp message). Powell does not specifically disclose a DS1 payload and timing reference signals having a data rate 1.544 Mbps. However, Powell stated that mapping could be done with DS1 signals with timing reference signals having 1.544 Mbps (i.e. col. 1, ll. 29-31, DS1 can be mapped and is defined to be 1.544Mbps it is inherent that signals being transmitted will be 1.544Mbps). Therefore it would have been obvious to an ordinary person skilled in the art at the time of the invention to include DS1 signals and 1.544 Mbps as the clocking frequency in order to provide the proper frequency with the DS1 signals with the method and apparatus of Powell in order prevent temporary or long-term constant desynchronizer buffer spills. The motivation is to improve the performance of DS1 transmission. Moreover, Powell does not specifically disclose HDSL2 frames having a data rate of 1.552Mbps. However, HDSL2 frame having a data rate of 1.552Mbps is old and well known because it is a standard. Therefore, it would have been obvious to an ordinary person skilled in the art at the time of the invention to include using HDSL2 at

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1.552Mbps as taught by the standard with the method and apparatus of Powell. The motivation is to provide high bit rate digital subscriber line service over a single twisted pair.

3. Claims 7-8 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell in view of Kelly et al. further in view of Narasimha et al. (US 5,638,379).

Regarding claims 7-8 and 15-16, Powell does not specifically disclose the timing reference signal is generated by a building integrated timing supply having GPS capability; and transmitted clock is generated by an add-drop multiplexer associated with the transmitter. However, Narashimha et al. teaches the timing reference signal is generated by a building integrated timing supply having GPS capability (i.e. col. 1, ll. 30-34, col. 4, ll. 3-4, BITS produces reference timing and PRS clocks uses GPS receiver technologies); and transmitted clock is generated by an add-drop multiplexer associated with the transmitter (i.e. col. 4, ll. 17-20). Therefore, it would have been obvious to an ordinary person skilled in the art at the time of the invention to include the timing reference signal is generated by a building integrated timing supply having GPS capability; and transmitted clock is generated by an add-drop multiplexer associated with the transmitter as taught by Narasimha et al. with the method and apparatus of Powell in order to regenerate synchronization. The motivation is to transport reference signals over existing network and to achieve the flat synchronization distribution system without substantial hardware investments and retrofitting costs.

Response to Arguments

4. Applicant's arguments filed 6/30/03 have been fully considered but they are not persuasive.

5. Applicant asserts that the combination does not disclose DSL signal includes frequency and phase information; local oscillator receive timing reference signal as an external timing reference; and frequency and phase information is recovered and the receive side timing reference signal is derived. Examiner respectfully disagrees. First, an oscillator inherently output signals with frequency and phase information. Second, Powell also discloses local oscillator (14) receive timing reference signal (16) as an external timing reference. Finally, frequency and phase information is recovered (i.e. col. 4, ll. 35-45, frequency and phase are used in synchronizing) and the receive side timing reference signal is derived (i.e. col. 6, ll. 51, recover the original clock signal).

Because all the limitations are disclosed in Powell in view of Kelly, the claims remain rejected.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any


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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

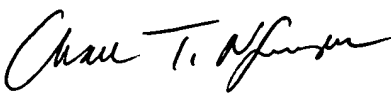
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasper Kwoh whose telephone number is (703) 305-0101. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703)308-5340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.


Jasper Kwoh
Examiner
Art Unit 2663

JK


CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600